

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US02/07377

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> IPC(7) : C12Q 1/68, C07H 21/02, 21/04, C12P19/34 US CL : 435/6, 91.2, 91.51; 536/22.1, 24.33 According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b> Minimum documentation searched (classification system followed by classification symbols) U.S. : 435/6, 91.2, 91.51; 536/22.1, 24.33 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Please See Extra Sheet.		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X,P	US 6,251,639 B1 (KURN) 26 June 2001, col. 5, lines 29-45, lines 50-67 to col. 6, lines 1-3 and col. 66, lines 24-51.	1-52 and 83-84
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.		
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "Z" document member of the same patent family	
Date of the actual completion of the international search 26 FEBRUARY 2003		Date of mailing of the international search report <b>08 AUG 2003</b>
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230		Authorized officer <i>Cherie Bell-Harris</i> JOYCE TUNG Telephone No. (703) 308-0196

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/07877

### Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

### Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

Please See Extra Sheet.

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:  
claims 1-52 and 83-84

Remark on Protest

☐

The additional search fees were accompanied by the applicant's protest.

☐

No protest accompanied the payment of additional search fees.

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### B. FIELDS SEARCHED

Electronic data bases consulted (Name of data base and where practicable terms used):

west 2.0 searched, JPO, EPO, Derwent, uspatful

STN searched, medline, caplus, biosis

search terms: RNA, amplification, generating, producing, synthesizing, complements complementary, propromoter sequences, propromoter oligonucleotide, primers

### BOX II. OBSERVATIONS WHERE UNITY OF INVENTION WAS LACKING

This ISA found multiple inventions as follows:

This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for all inventions to be searched, the appropriate additional search fees must be paid.

Group I, claim(s) 1-52 and 83-84, drawn to a method of generating multiple copies of the complementary sequence of an RNA sequence of interest involving a first primer forming a complex, cleaving the complex and extending a second primer forming a complex and denaturing the complex and hybridizing a propromoter to the second primer extension product.

Group II, claim(s) 53-54, drawn to a method of sequencing an RNA sequence of interest.

Group III, claim(s) 55-58, drawn to a method of detecting a mutation in a target RNA.

Group IV, claim(s) 59-61, drawn to a method of producing a nucleic acid immobilized to a substrate.

Group V, claim(s) 62-75, drawn to a method of charactering an RNA sequence of interest.

Group VI, claim(s) 76-77, drawn to a method of determining gene expression profile.

Group VII, claim(s) 78-80, drawn to a method of preparing a library.

Group VIII, claims 81-82, drawn to method of performing substrate hybridization.

The inventions listed as Groups I-VIII do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Since these groups are methods and PCT does not allow multiple methods in one application, lack of unity is issued.